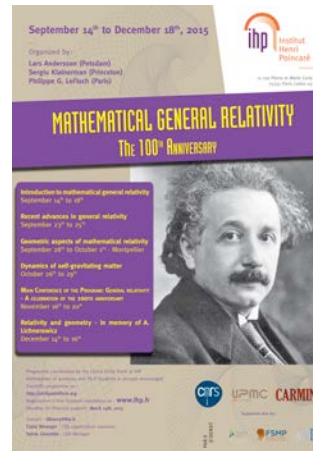


« **Mathematical General Relativity** »
Paris, September 14th – December 18th, 2015

Workshop « DYNAMICS OF SELF-GRAVITATING MATTER »
Paris, October 26th – 29th, 2015

Amphitheater Hermite



Organizers :

Lars Andersson (Potsdam), **Sergiu Klainerman** (Princeton), **Philippe G. LeFloch** (Paris)

Speakers :

Hakan Andreasson (Gothenburg)

Thierry Barbot (Avignon)

Robert Beig (Vienna)

David Fajman (Vienna)

Marc Mars (Salamanca)

David Maxwell (Fairbanks)

Todd Oliynyk (Monash)

Volker Schlue (Toronto)

Bernd Schmidt (Potsdam)

Jared Speck (Cambridge, USA)

Shadi Tahvildar-Zadeh (Rutgers)

Eric Woolgar (Alberta)

PROGRAM

Monday October 26th

1.30 pm – 2.00 pm	Registration	IHP ground floor
2.00 pm – 3.00 pm	Shadi Tahvildar-Zadeh	Spin and topo-spin: Topological aspects of Kerr-Newman spacetimes and their consequences for the Dirac equation
3.00 pm – 3.30 pm	Coffee break	IHP ground floor
3.30 pm – 4.30 pm	Hakan Andreasson	Properties of axially symmetric stationary solutions of the Einstein-Vlasov system and the Vlasov-Poisson system

Tuesday October 27th

9.30 am – 10.30 am	Thierry Barbot	Fuchsian polygonal surfaces in Minkowski and the decorated Teichmüller space
10.30 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 12.00 pm	Bernd Schmidt	Transition conditions for isolated self-gravitating bodies
12.00 pm – 2.00 pm	Lunch break	
2.00 pm – 3.00 pm	David Maxwell	Conformal Killing F-fields and non-CMC solutions of the constraint equations
3.00 pm – 3.30 pm	Coffee break	IHP ground floor
3.30 pm – 4.30 pm	David Fajman	L ² -estimates for geometric transport equations

Wednesday October 28th

9.30 am – 10.30 am	Marc Mars	Characterization of (asymptotically) Kerr-de Sitter-like spacetimes at null infinity
10.30 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 12.00 pm	Eric Woolgar	Lorentzian N-Bakry-Emery cosmological singularity and splitting theorems
12.00 pm – 2.00 pm	Lunch break	
2.00 pm – 3.00 pm	Volker Schlue	Non-existence of time-periodic vacuum spacetimes
3.00 pm – 3.30 pm	Coffee break	IHP ground floor
3.30 pm – 4.30 pm	Jared Speck	Stable big crunches in general relativity
6.00 pm	Buffet Dinner Reception	IHP ground floor

Thursday October 29th

9.30 am – 10.30 am	Todd Oliynyk	Future stability of the FLRW fluid solutions with a positive cosmological constant
10.30 am – 11.00 pm	Coffee break	IHP ground floor
11.00 am – 12.00 pm	Robert Beig	Celestial mechanics of elastic matter

Abstracts are available on the website of the Trimester « Mathematical General Relativity » : <http://philippefloch.org>

Plus weekly courses on Friday October 30th

2.00 pm – 4.30 pm (Amphitheater Darboux)

Philippe LeFloch : An introduction to self-gravitating matter

3.00 pm – 3.30 pm – Coffee break on the second floor